

ABSTRACT

An alignment method capable of performing alignment without providing alignment marks on a mask and  
5 preventing a decline of exposure throughput and latent image contrast, an alignment substrate and the production method thereof, an exposure method, an exposure apparatus and a production method of a mask are provided. An alignment method including a step of transmitting a light  
10 or a charged particle beam from a first surface side of a thin film to a second surface side, reflecting the light or charged particle beam on a plurality of alignment marks arranged on the second surface side of the thin film but outside the thin film, detecting the reflected  
15 light or charged particle beam on the first surface side, and detecting positions of the alignment marks, and a step of obtaining position coordinates on the thin film; an alignment substrate used for the alignment method and a production method thereof, an exposure method for  
20 performing the alignment, an exposure apparatus and a production method of a mask are provided.